

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003293**Date Inspected:** 07-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

The Quality Assurance (QA) Inspector Gregory Bertlesman arrived on site at the Zhenhua Port Machinery Company facility on Changxing island, China to periodically monitor welding and Quality Control functions. While on site the Quality Assurance Inspector observed and/or discovered the following.

OBG Sub-Assembly Bay 1**Deck Panel Production Welding**

The Quality Assurance Inspector witnessed the welding of the production panels DP-331-002 (4 rib) and DP-115-002 (4 rib). The welding of the deck panels was performed on gantry 1 to produce the partial joint penetration groove weld. Upon completion of the gas metal arc welding (GMAW) root pass ZPMC performed the subsequent submerged arc welding (SAW) pass. The parameters appeared to be within welding procedure specification for dual process WPS-B-T-2342-U1 (U-rib)-3.

ABF Representative Kit Man Li informed QA that ZPMC performed magnetic particle testing to the tack welds on Deck Panel DP-331-002 and marked 74 out of 208 tack welds for repair and on DP-115-002, 94 out of 208 for repair. Below is a digital photograph of a tack weld on DP-115-002 illustrating a typical magnetic particle indication.

The Quality Assurance Inspector observed ZPMC performing fit-up and tack weld operations to Deck Panel DP-142-001 utilizing the GMAW process.

The Quality Assurance Inspector measured the bevel of Deck Panel DP-171-001 U rib 3 partial joint penetration

WELDING INSPECTION REPORT

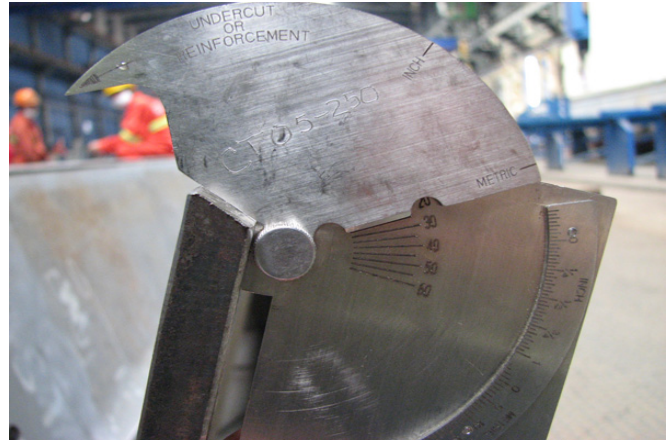
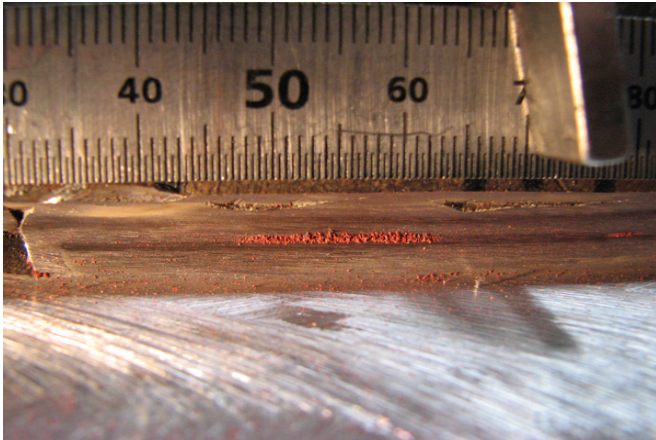
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connection. The Quality Assurance Inspector measured the bevel to be approximately 25 degrees and informed ZPMC Quality Control Inspector Sun Wei. Mr. Sun relayed he would instruct for the bevel to be ground within tolerances and adjust the milling machine. Below is a digital photograph illustrating the measurement with a bridge camber gauge.

Bay 2 The Quality Assurance Inspector observed no ZPMC personnel working on the 114M Tower Mock-up Assembly.

OBG Sub Assembly Bay 3

The Quality Assurance Inspector observed ZPMC performing in process welding of Side Panel SP-172A, T stiffener to side plate connection. Quality Control Inspector Wu Zhi Feng was monitoring the welder. The welders were using the flux cored arc welding process to produce the fillet welds in the horizontal position. The part was stationary on gantry 1 while the welding machine was on tracks to facilitate welding along the length of the part. The Quality Assurance Inspector recorded the welding parameters at the welder's station and found the parameters to meet the minimum requirements of welding procedure specification WPS-B-T-2233-B-U2-F. The Quality Assurance Inspector witnessed Quality Control measuring the interpass temperature using a calibrated infra-red temperature measuring device.



Summary of Conversations:

As stated in the contents of the above report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco(707) 552 7715, who represents the Office of Structural Materials for your project.

Inspected By:	Bertlesman,Greg
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Quality Assurance Inspector

Reviewed By:	Cochran,Jim
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QA Reviewer
